

The college teacher of biological sciences may find the first part of the Miller and Blaydes an interesting introduction to the field of science pedagogy. While much that is currently printed under this general head is of ephemeral value when not absolutely useless it is none the less true that many college teachers could profit through some well selected reading in the field of science education. For too many biology teachers, high school as well as college, the value of any given biology course is judged chiefly by the number of separate facts which the student can be made to memorize and repeat. The idea that piles of facts have no more real value than jumbled piles of bricks is obviously not as widely appreciated as it might be. The real responsibilities of science teaching can be realized only when factual material is used to build definite structures, and particularly, when the student is gradually trained to fashion his own syntheses.

One point becomes noticeable to anyone who compares recent educational literature with older discussions along the same line; vocabularies and phrases change as the years go by; the ideas remain much the same. Two older books, dealing with the presentation of a biological science objectively, and which may be consulted with profit, are Ganong's "The teaching botanist," and Osterhout's "Experiments with plants," both still in print (Macmillan).

An Introduction to Botany*

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It is appropriate to review Priestley and Scott's "Introduction to botany" in association with a review of "Methods in Biology" because this botany represents a distinctive methodology very carefully and logically worked out. Whether American botany teachers find its methods feasible under American conditions or not, it seems certain that they will find this text valuable both as an aid to their own teaching and as reference reading for their students.

The Priestley and Scott is designed to provide students both with general textual material and with directions for laboratory

* Priestley, J. H., and Scott, Lorna I. An introduction to botany. Longmans, Green & Co., Ltd., London, 1938. \$6.00.

work. The latter are incorporated as an integral part of the text development, not as sometimes happens, as disjunct digressive passages. Part of the distinctiveness of this book lies in the fact that most of its generalizations are "developmentally" approached; the expository style is purely inductive as compared with the more didactic treatment followed by most American texts. The Priestley and Scott presents considerable objective data in the form of measurements, and tables, but much less in the way of pictures than the average American book. The illustrations given are chiefly original, skillfully made drawings, often showing three-dimensional aspects.

One illustration of the quality of the Priestley and Scott is found in the treatment of the common plants upon which the morphological and physiological discussions are based. It must have been the not infrequent experience of all teachers in biological sciences to be confronted with factual questions relating to even the most widely discussed species for which no definitive answer was readily if at all available. The writers of this text have evidently anticipated this difficulty by carrying on a good deal of original research regarding the plants discussed in the text.